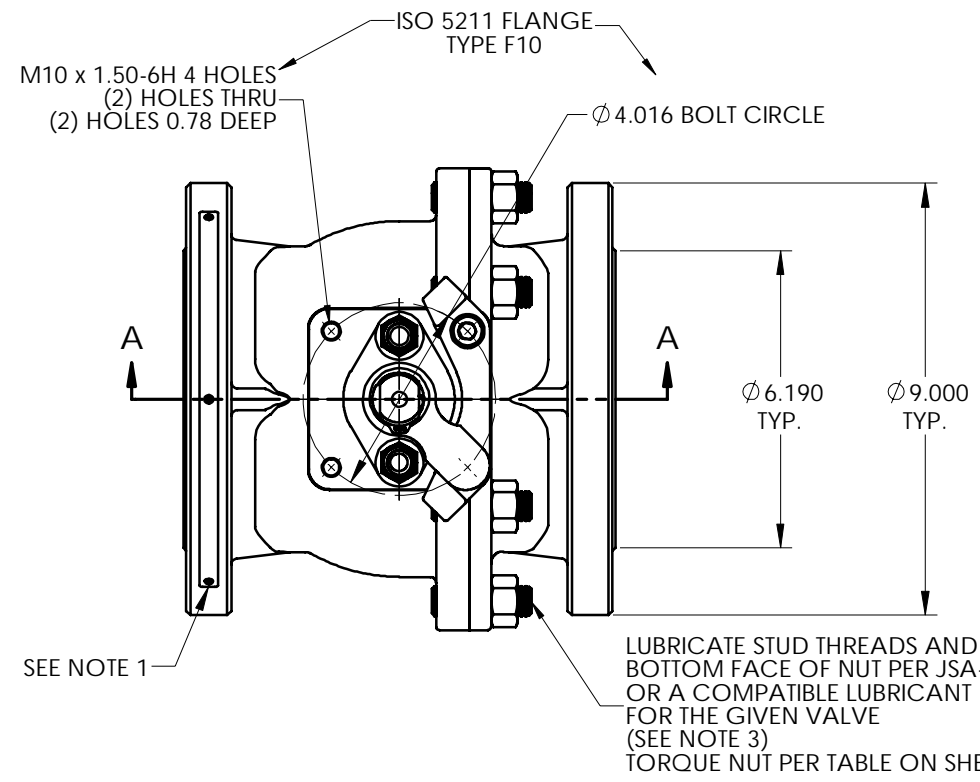
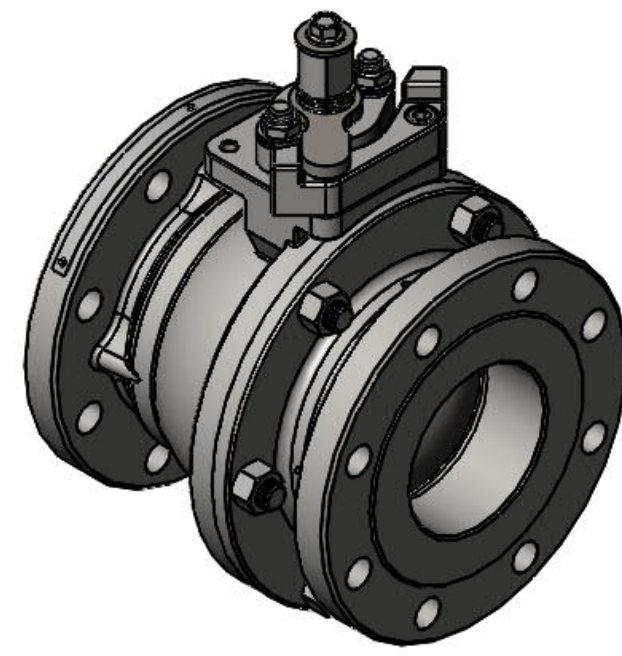


| LET | ECN | REVISION | DRAWN | APPROVED | DATE |
|-----|-------|---|-------|----------|---------|
| A | 43653 | REVISED NOTE 5 ADDED (ESNA) TO ITEM 30 | PJD | KAS | 4/13/16 |
| B | 43764 | REMOVED METRIC DIMENSIONS REVISED NOTE 5 ADDED NOTE 6 | PJD | KAS | 6/10/16 |
| C | 44414 | SEE ECN FOR CHANGES | KML | PJD | 8-24-18 |

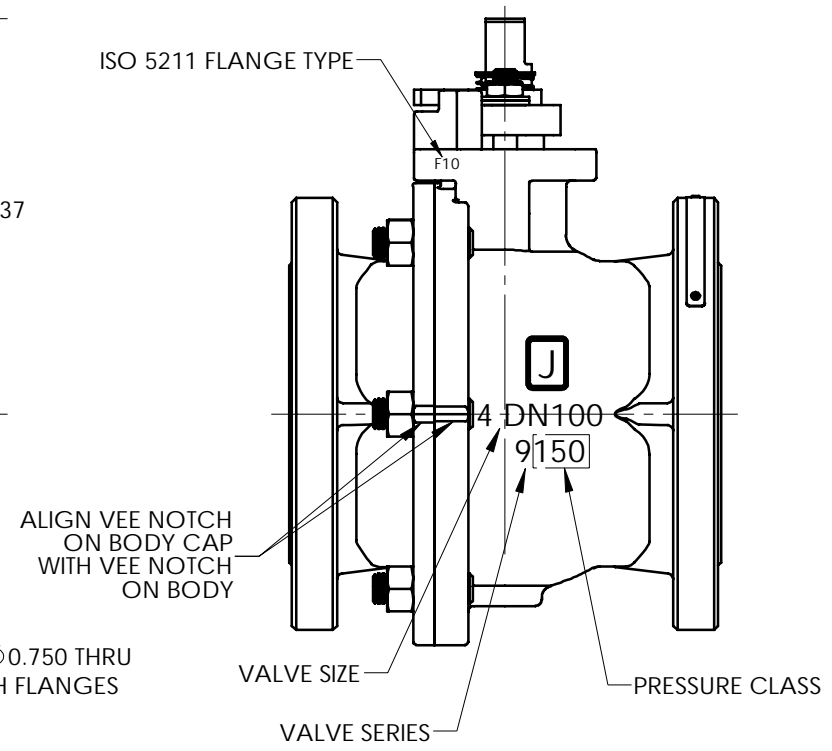
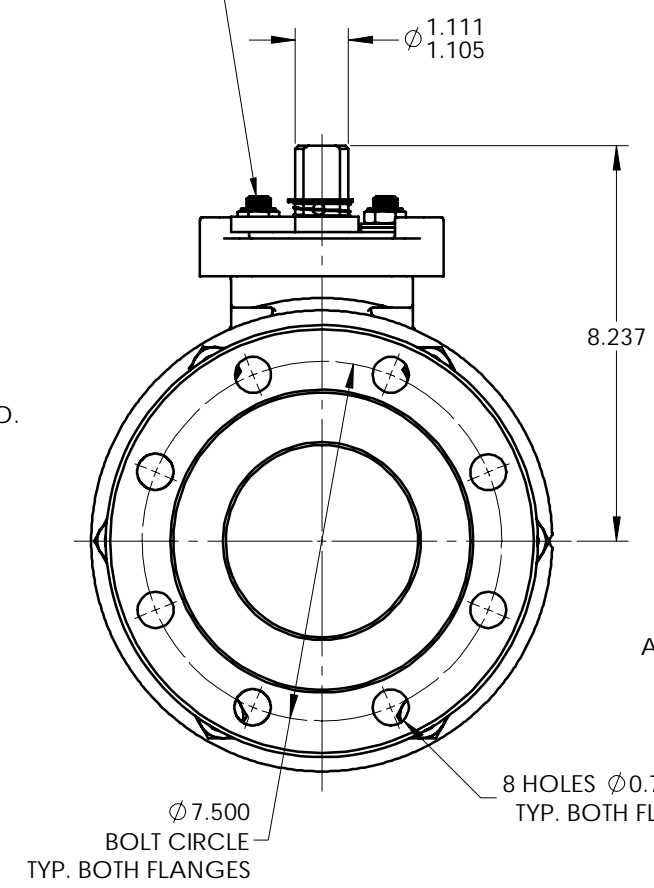
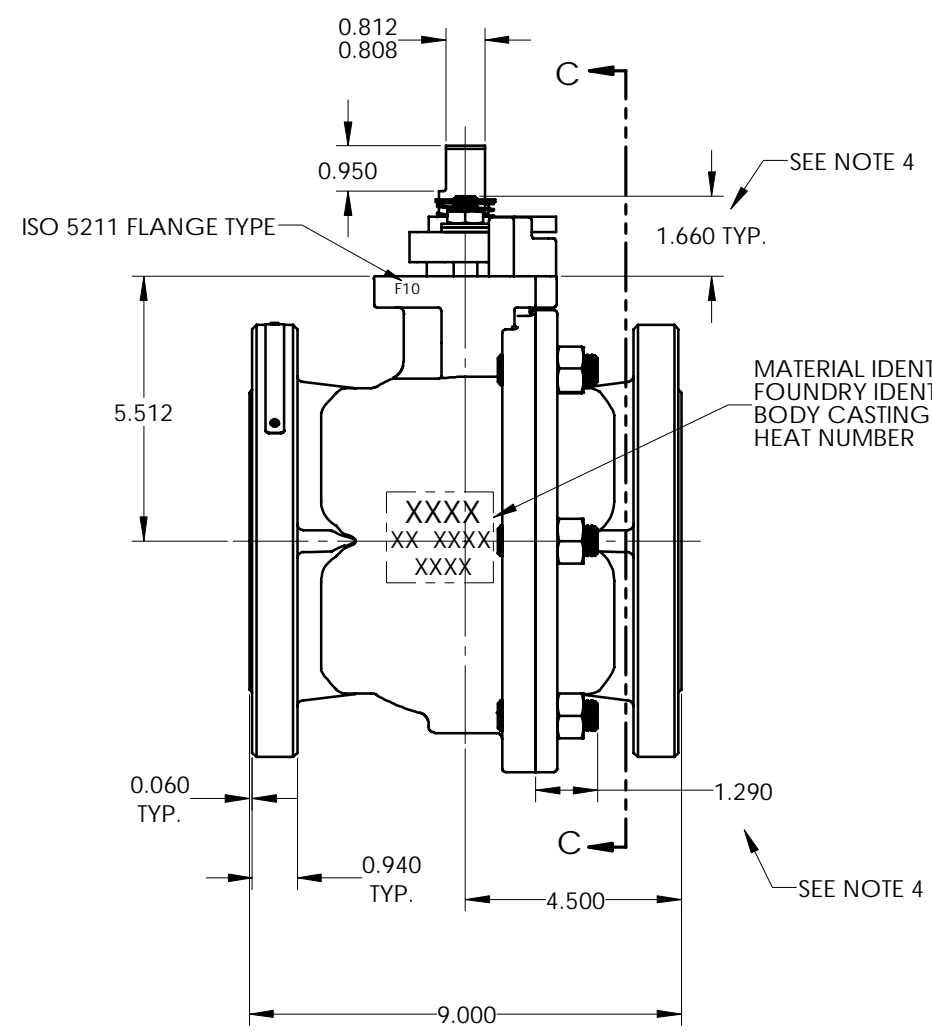
NOTES:

- Ⓒ 1. ATTACH IDENTIFICATION TAG PER JS-115.
- 2. FOR INSTALLATION, MAINTENANCE & OPERATING INSTRUCTIONS SEE IMO-R29.
- 3. WHERE IDENTIFICATION APPEARS ON NUT OR STUD FACE, ASSEMBLE WITH IDENTIFICATION ALWAYS VISIBLE.
- 4. STUD HEIGHT IS ONLY APPLICABLE WHEN USING CONTINUOUS THREADED STUDS. WHEN USING CONTINUOUS THREADED STUDS, USE LOCTITE #271 ON STUD THREADS INTO BODY PER JSA-34. DOUBLE ENDED STUDS DO NOT REQUIRE LOCTITE.
- 5. DIMENSIONS ARE IN INCHES. (A) (B)
- 6. SEE INSTRUCTIONAL DRAWING I-1774 FOR HANDLE OPTIONS AND DIMENSIONS. (B)
- Ⓒ 7. DOUBLE ENDED STUDS MAY BE SUBSTITUTED WITH CONTINUOUS THREADED STUDS IN THE SAME MATERIAL. APPROVED CONTINUOUS THREADED STUD SUBSTITUTIONS ARE SHOWN ON INSTRUCTIONAL DRAWING, I-1783.



LUBRICATE STUD THREADS AND BOTTOM FACE OF NUT PER JSA-01 OR A COMPATIBLE LUBRICANT FOR THE GIVEN VALVE (SEE NOTE 3)
TORQUE NUT TO 8 FT.-LBS.

LUBRICATE STUD THREADS AND BOTTOM FACE OF NUT PER JSA-01 OR A COMPATIBLE LUBRICANT FOR THE GIVEN VALVE (SEE NOTE 3)
TORQUE NUT PER TABLE ON SHEET 2



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RESTRICTED

TITLE: VALVE ASSEMBLY
4" SERIES 9150RR MODEL C
FULL BORE ASME CLASS 150
FLANGED BALL VALVE

DATE: 6/22/18
DATE: 7/1/15

DRAWN: PJD
APPVD: KAS

SIZE: D
DWG NO: 5575
REV: C

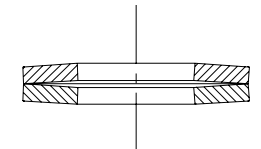
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SHREWSBURY, MASSACHUSETTS

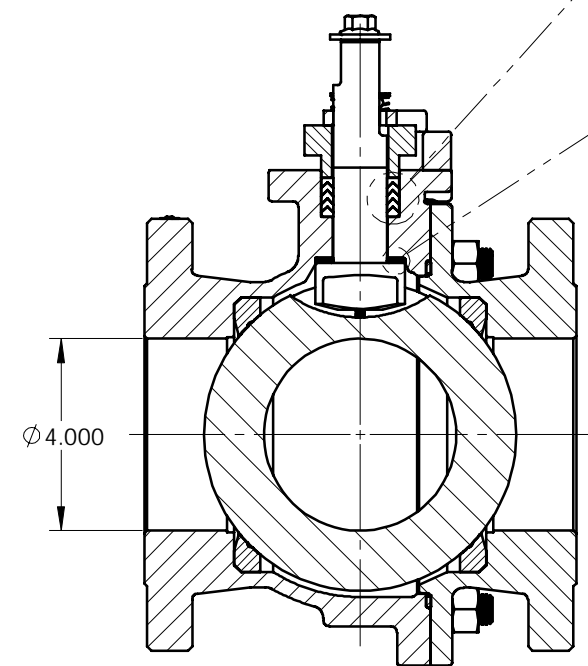
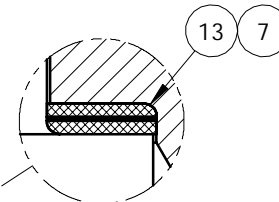
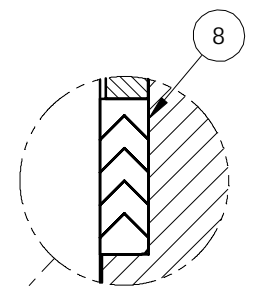
SHEET 1 OF 2

| ITEM NO. | DESCRIPTION | Default/QT. | SPARE PART |
|----------|----------------------------|-------------|------------|
| 1 | BODY | 1 | N/A |
| 2 | BODY CAP | 1 | N/A |
| 3 | BALL | 1 | B |
| 4 | STEM | 1 | B |
| 5 | SEAT | 2 | A |
| 6 | BODY SEAL | 1 | A |
| 7 | SECONDARY STEM SEAL | 1 | A |
| 8 | STEM SEAL | 1 | A |
| 13 | STEM BEARING | 2 | A |
| 16 | HEX. HEAD CAP SCREW | 1 | B |
| 17 | HANDLE (SEE NOTE 6) | 1 | B |
| 19 | FLAT WASHER | 1 | B |
| 20 | COMPRESSION PLATE | 1 | B |
| 22 | IDENTIFICATION TAG | 1 | N/A |
| 23 | POP RIVET | 3 | N/A |
| 29 | BONNET STUD | 2 | B |
| 30 | BONNET STUD NUT (ESNA) (A) | 2 | B |
| 31 | DISC SPRING | 4 | B |
| 32 | BODY STUD | 6 | B |
| 33 | BODY STUD NUT | (C)6 | B |
| 70 | TOP GROUNDING SPRING | 1 | B |
| 71 | BOTTOM GROUNDING SPRING | 1 | B |
| 72 | RETAINING RING | (C)1 | B |
| 79 | TRAVEL STOP | 1 | B |
| 80 | INDICATOR STOP | 1 | B |
| 81 | SOCKET HEAD CAP SCREW | 2 | B |

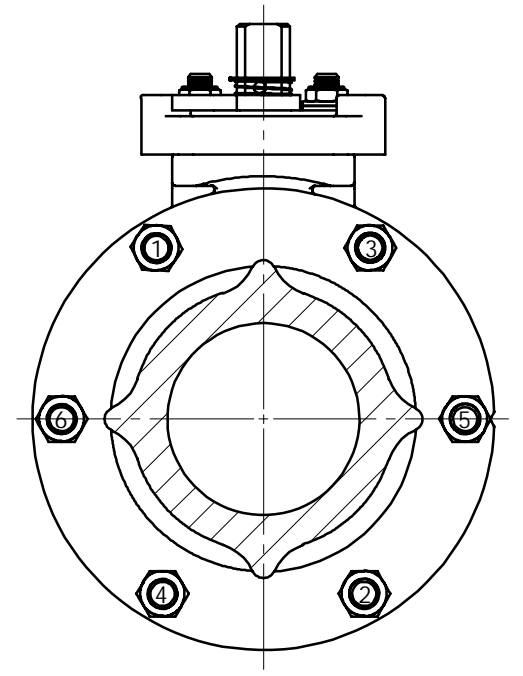
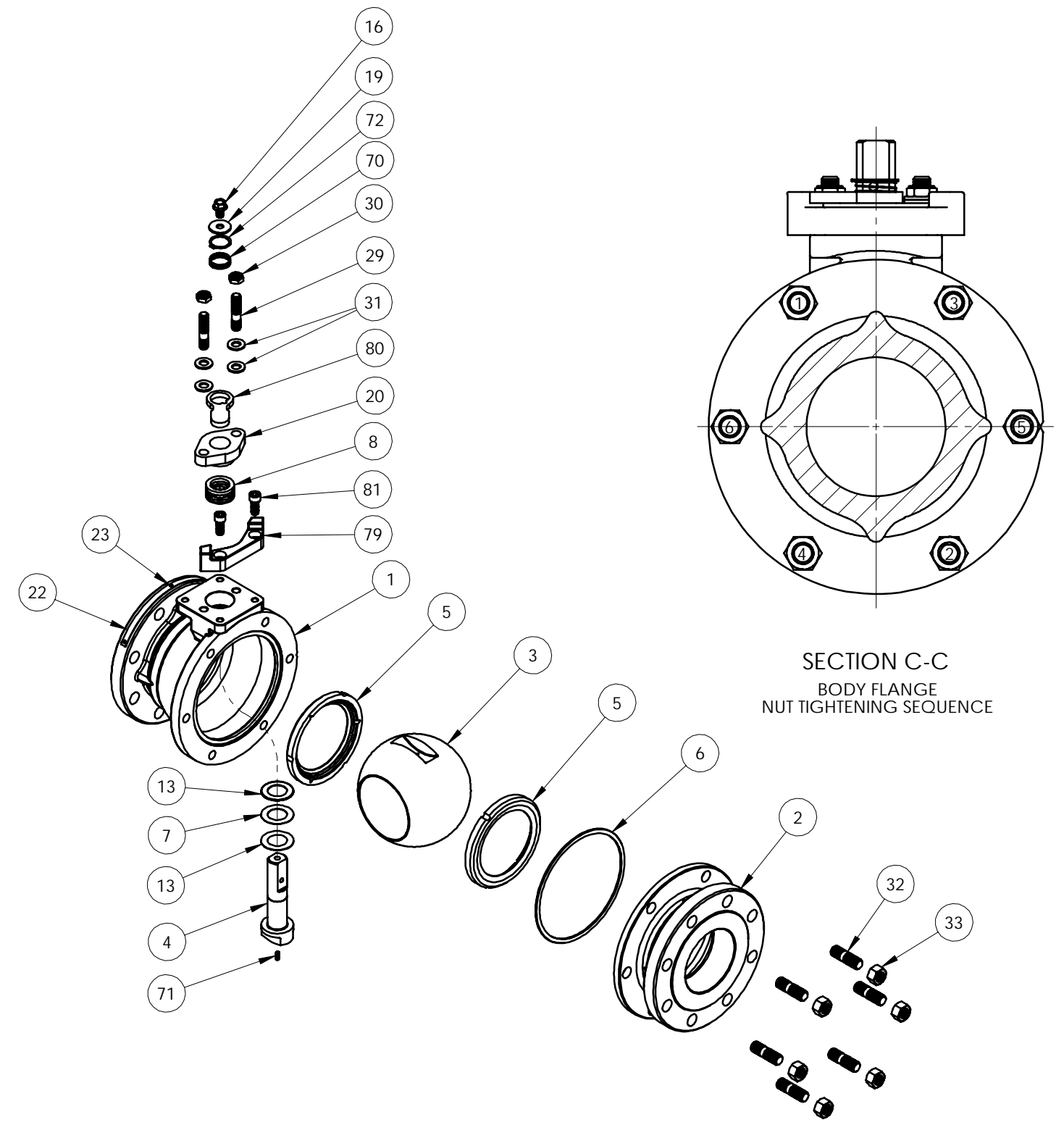
A= PART SUPPLIED IN SPARE PART SET
 B= PART MAY BE ORDERED AS REQUIRED FOR REPAIR
 N/A= NOT AVAILABLE AS A SPARE PART



PROPER DISC SPRING ARRANGEMENT (UNCOMPRESSED)



SECTION A-A



SECTION C-C
 BODY FLANGE
 NUT TIGHTENING SEQUENCE

| BODY STUD NUT ASSEMBLY TORQUE (FT.-LBS.) | | | | |
|--|------------------------|--------------------|-------------------|-----------------------|
| MAT'L. CODE | MAT'L. SPEC. | MAT'L. IDENT. STUD | MAT'L. IDENT. NUT | BODY STUD NUT ITEM 33 |
| 19 | A-193 GR. B7M | B7M | 2HM OR 2HMB | 110 - 140 |
| 20 | A-193 GR. B7 | B7 | 2H OR 2HB | 150 - 190 |
| 31 | A-193 GR. B8 | B8, B8C OR B8I | B8, B8C OR B8I | 161 - 197 |
| 35 | B-473 CARPENTER 20Cb-3 | A20 | A20 | 85 - 105 |
| 71 | QQ-N-286 | K | K | 115 - 141 |

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SPECIFICATIONS TO BE USED IN CONJUNCTION WITH THIS DRAWING
 JSA-01, JST-02
 JSA-10, JSA-17
 JSA-34, JSA-85
 JS-115
 IMO-R29

MAKE FROM PART NO. RESTRICTED
 TITLE: VALVE ASSEMBLY
 4" SERIES 9150RR MODEL C
 FULL BORE ASME CLASS 150
 FLANGED BALL VALVE
 DRAWN: PJD DATE: 6/22/18
 APPVD: KAS DATE: 7/1/15

metso
 SHREWSBURY, MASSACHUSETTS

SIZE: D DWG NO: 5575 REV: C